



MEDIATION OF TRIGUNA DOMINANCE BETWEEN RATIONALITY AND COPING HUMOR

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ABSTRACT

Since the emergence of positive psychology, researchers are trying to establish relationships among positive psychological variables, individual characteristics and environmental factors, in order to find approaches to enhance well-being and psychological health. In this regard, researchers have been adopting Eastern or Western perspective. Researches with Western perspective have always been in the forefront, while Eastern perspectives, although being age-old systems, have emerged in the spotlight in recent decades. These two perspectives well-define cultural differences while also accounting for individual differences, therefore, considered important to study.

Despite large number of studies on positive psychological variables, there is a need for establishing the role of cognitive aspects in positive psychological variables, furthermore so, in the light of Eastern perspective.

Thus, the present study aimed to explore the mediational role of Triguna dominance in relationship of Rationality with Coping Humor. The study sample consisted of 100 mid-adults (40-65 years).

Significant results of correlation and regression motivated to perform mediational analysis. The relationship of Rationality with Coping Humor was found to be 0.12 and 0.22 points higher as mediated by Rajas and Tamas guna respectively. Satva guna had no mediational role in their relationship.

Coping humor is a relatively new variable in positive psychology with limited research and theoretical bases. The results of the study can guide researchers in the exploration of the variable and development of the theories and models based on integrated research findings, furthermore so, with an Eastern perspective of Triguna. The study can be implied to various psychological fields, like counselling, rehabilitation psychology, health psychology, and others, to develop interventions and techniques to increase Rationality, Coping humor, and Satva guna while decreasing Rajas and Tamas guna to boost mental health and well-being.

KEYWORDS: Rationality, Triguna, Coping Humor, Well-being, Indian Psychology

INTRODUCTION

Inquisitiveness is the essence of research. Since the emergence of positive psychology, researchers have been attempting to establish relationship between positive psychological variables, individual characteristics and environmental factors, to find ways towards better psychological health. In recent decades, Eastern perspectives have become the kingpin in such exploration. Despite the myriad of studies present in the psychological literature with respect to positive psychological variables, there is a need to study them in relation to the cognitive aspects of human behaviour, furthermore so, in the light of Eastern perspective. Thus, the present study has attempted to explore the relationship of cognitive aspect of individuals, that is, rationality, with the positive psychological variable, which is Coping humor, and how their relationship is mediated by the Eastern concept of the dominance of Triguna-Sattva, Rajas and Tamas.

Rationality is overriding intuitive responses to reach the appropriate one (Toplak et al.; 2014). Researchers discarded earlier belief that psychology explains only deviations from rationality and emphasized the role of behavioural theories in rationality and decision-making (Mercer, 2005; Simon, 1986). It was suggested that rationality shapes positive and negative emotions and the consequent decisions can be explained by essentially taking into account various aspects including psychological, biological, social, and ethical aspects (Steele, 2004; Clore, 2011). All these aspects can be seen as directly or indirectly influenced by Triguna dominance.

Triguna is the ancient Indian system of personality structure scripted in Bhagwad Gita, Sankhya Yoga and Charak Samhita. Sattva relates to knowledge and light, Rajas to activity and restlessness, and Tamas to dullness and inertia. Researchers suggest that the interaction of three gunas can explain all psychological phenomena and consequent behaviour, where

Sattva relates to positive affect and positive variables like coping humor, emotional regulation, resilience, well-being and rationality, while Rajas and Tamas explains negative affect and psychological dysfunction. Thus, there is positive relationship between Rajas and Tamas, and they have negative relationship with Sattva. (Lakshmi Bai et. al, 1975; Balodhi, 2005; Singh, 2008; Bryant, 2009; Das and Gopal, 2009; Khanna et al., 2013; Puta and Sedlmeier, 2014; Singh et al., 2015; Singh et al., 2016).

Coping humor is defined as the propensity to use humor as a method for individuals to cope with stress or adversity in life (Martin and Lefcourt, 1983; Martin, 2007). Humor can be used as an asset in recovery from illness, dealing with mortality, enhancing immune system functioning, and managing stress-related physiological responses. Coping humor, self-efficacy and social support are found to be important factors for explaining health status in older adults. Coping humor is vital for reinforcing self-efficacious approaches to the management of health issues (Marziali et al.; 2008). Comparative to other positive stress-coping strategies, like rational actions or self-adjustment, coping humor may help ease stress by improving individual mental happiness and personal charm while also creating a friendly atmosphere (Martin, 2007). Coping humor significantly positively predicted psychological health and negatively predicted negative affective states (Madhan et al., 2013; Srivastava & Maurya, 2014). Coping humor has positive association with resilience, better emotional regulation, peer relationship, self-esteem, body-esteem, job-related positive affect, extraversion, emotional stability, and well-being and negative association with job-related negative affect, depression, anxiety and psychological disturbances (Deaner & McConatha, 1993; Doosje et al., 2010; Hiranandani & Bing Yue, 2014; Singh & Singh, 2021). In times of COVID-19, Coping humor significantly and directly increased psychological flexibility and lowered hopelessness. Increasing coping humor, reducing anxiety and problematic social media use was thought to be helpful to enhance psychological flexibility and lessen hopelessness during pandemic (Saricali et al., 2020; Güldal et al., 2022). 'Clowning', a technique/form of humour, invites play, interaction, and laughter by trained hospital clowns. It helps patients to focus on something other than illness, create warm climate and positive emotional state, enhance interpersonal relationships, and relieve feelings of frustration, anxiety, or hostility. Promotion of emotional and psychosocial well-being with this technique based on coping humour was believed to provide opportunities for oral health promotion activities in hospitals, schools and community (Tevatia et al., 2017). Males indicate higher levels of humor than females (Madhan et al., 2013; Singh & Singh, 2021).

Kaur et al. (2022) conducted a cross-sectional study to compare cognition, coping styles and Triguna. All types of coping of Brief COPE scale (of which humor is a part) correlated positively to Sattva guna and negatively to Rajas and Tamas guna. Further, review also suggest that Coping humor, alike Sattva, relates to positive variables such as well-being, better emotional regulation and emotional stability, resilience and positive affect. Whereas coping humor, unlike Rajas and Tamas, negatively relates to variables such as depression, anxiety,

negative affect and psychological disturbances. (Lakshmi Bai et. al, 1975; Deaner & McConatha, 1993; Balodhi, 2005; Singh, 2008; Bryant, 2009; Das and Gopal, 2009; Doosje et al., 2010; Khanna et al., 2013; Hiranandani & Bing Yue, 2014; Puta and Sedlmeier, 2014; Singh et al., 2015; Singh et al., 2016; Saricali et al., 2020; Singh & Singh, 2021).

Research evidences associating Triguna with Coping humor, and suggested linkages with rationality, motivated to conduct the present study to explore their relationships empirically.

METHODS

Objectives

1. To study the relationship among Rationality, Triguna dominance and Coping humor
2. To explore the interactive effect of Rationality on Triguna dominance and Coping humor
3. To explore the interactive effect of Triguna dominance on Coping humor
4. To investigate the meditational role of Triguna dominance between Rationality and Coping humor

Hypotheses

1. There is relation among Rationality, Triguna dominance and Coping humor.
2. Rationality predicts Triguna dominance and Coping humor.
3. Triguna dominance predicts Coping humor
4. Triguna dominance mediates the relationship between Rationality and Coping humor

Sample

The sample was 100 participants in their middle adulthood (40 to 65 years) who were employed and residing in urban locality. Participants with mental or chronic physical illnesses, those of rural domicile, non-working and retirees were excluded.

Research Design

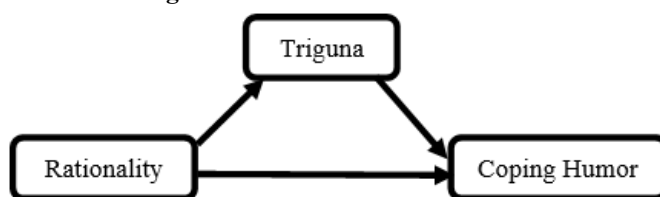


Figure 1 Causal Research design of the study.

The results of the study employed descriptive and inferential statistics. Descriptive statistics (Mean and S.D.) were calculated for all variables, followed by correlational analysis. The three guna - Sattva, Rajas and Tamas are analyzed separately.

	Rationality	Coping humor	Sattva	Rajas	Tamas
Rationality	1	.168	.192	-.382*	-.407**
Coping humor		1	.551**	-.257*	-.394**
Sattva			1	-.201*	-.449**
Rajas				1	.850**

Tamas					1
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Note: **= significant at $p < 0.01$; *= significant at $p < 0.05$

Table 1: Correlational Analyses of Independent Variable, i.e., Rationality, Dependent Variable, i.e., Coping humor, and Mediator Variable, i.e., Triguna (Sattva, Rajas and Tamas)

Table 1 shows correlational analysis indicating statistically significant relationships between almost all the variables. It indicates significant negative relationship of Rationality with Rajas ($r = -0.382$; $p < 0.05$) and Tamas ($r = -0.407$; $p < 0.01$). The relationship of rationality with Coping Humor ($r = 0.168$; $p > 0.05$) and Sattva ($r = 0.192$; $p > 0.05$) was positive but not found to be significant. The relationship of Coping humor was significantly positive with Sattva ($r = 0.551$; $p < 0.01$), while significantly negative with Rajas ($r = -0.257$; $p < 0.05$) and Tamas ($r = -0.394$; $p < 0.01$). Sattva is indicated to be negatively related with Rajas ($r = -0.201$; $p < 0.05$) and Tamas ($r = -0.449$; $p < 0.01$), while there is significant positive relationship between Rajas and Tamas ($r = 0.850$; $p < 0.01$). By the correlational analysis, hypothesis 1 is accepted which suggest significant relationships among Rationality, Triguna dominance and Coping humor.

Regression Analysis

Significant relationships between almost all the variables of the study motivated to perform regression analysis to understand significant predictions among them. By regression analysis, hypothesis 2 and hypothesis 3 are accepted which indicated that rationality predicts Triguna dominance and Coping humor, and Triguna dominance predicts Coping humor, respectively.

Model I: Prediction of Coping humor by Rationality and Triguna

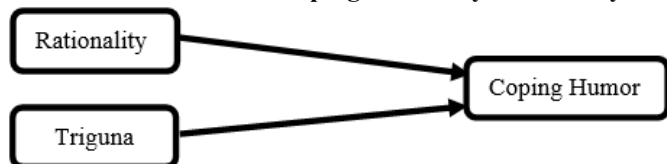


Figure 2: Regression analysis to predict Coping humor from Rationality and Triguna

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error			
	(Constant)	10.646	2.802		3.799	.000
	Rationality	.004	.129	.003	.033	.974
	Sattva	.132	.029	.475	4.634	.000
	Rajas	-.005	.028	-.030	-.171	.865
	Tamas	-.019	.024	-.154	-.799	.426

Dependent Variable: Coping humor

(NOTE: Fit for Model $R^2 = .330$; Adjusted $R^2 = .302$; $F(4, 94) = 11.590$, $p < 0.05$)

Table 2: Regression analysis showing prediction of Coping humor from Rationality and Triguna

Through this table, it can be seen that Rationality and Triguna account for 30.2% of variance in predicting coping humor. It was found that only Sattva ($\beta = .475$, $p < 0.01$) predicted coping humor, while rationality ($\beta = .003$, $p > 0.05$), rajas ($\beta = -.030$, $p > 0.05$) and tamas ($\beta = -.154$, $p > 0.05$) are not predictors of coping humor.

Model II: Prediction of Sattva guna by Rationality



Figure 3: Regression analysis to predict Sattva guna from Rationality

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error			
	(Constant)	84.866	1.922		44.148	.000
	Rationality	.955	.495	.192	1.929	.057

Dependent Variable: Sattva guna

(NOTE: Fit for Model $R^2 = .037$; Adjusted $R^2 = .027$; $F(1, 98) = 3.720$, $p > 0.05$)

Table 3: Regression analysis showing prediction of Sattva guna from Rationality

Through this table, it can be seen that rationality account for 2.7% of variance in Sattva guna. It was found that rationality ($\beta = .192$, $p > 0.05$) not predicted Sattva guna significantly.

Model III: Prediction of Rajas guna by Rationality



Figure 4: Regression analysis to predict Rajas guna from Rationality

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error			
	(Constant)	75.658	3.122		24.235	.000
	Rationality	-3.272	.804	-.382	-4.068	.000

Dependent Variable: Rajas guna

(NOTE: Fit for Model $R^2 = .146$; Adjusted $R^2 = .137$; $F(1, 98) = 16.552$, $p < 0.01$)

Table 4: Regression analysis showing prediction of Rajas guna from Rationality

Through this table, it can be seen that rationality account for 13.7% of variance in predicting Rajas guna. It was found that rationality ($\beta = -.382$, $p < 0.01$) predicted Rajas guna.

Model IV: Prediction of Tamas guna by Rationality**Figure 5: Regression analysis to predict Tamas guna from Rationality**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	72.218	3.959		18.241	.000
	Rationality	-4.479	1.020	-.407	-4.392	.000

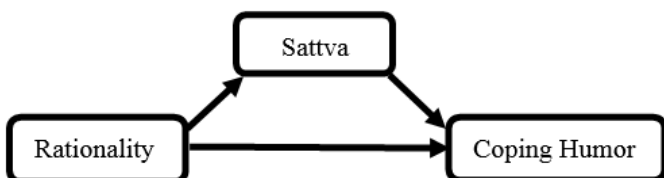
Dependent Variable: Tamas guna

(NOTE: Fit for Model $R^2 = .166$; Adjusted $R^2 = .157$; $F(1,98) = 19.289$, $p < 0.01$)**Table 5: Regression analysis showing prediction of Tamas guna from Rationality**

Through this table, it can be seen that rationality account for 15.7% of variance in Tamas guna. It was found that Rationality ($\beta = -.407$, $p < 0.01$) predicted Tamas guna.

Mediational Analysis

Significant results of regression motivated to perform mediational analysis by process. By mediational analysis, hypothesis 4 is accepted which proposed that Triguna dominance mediates the relationship between Rationality and Coping humor.

Model V: Mediation analysis of Sattva guna between Rationality and Coping humor**Figure 6: Mediation analysis showing indirect effect of Sattva guna on the relationship between Rationality and Coping humor**

Indirect effect of X on Y

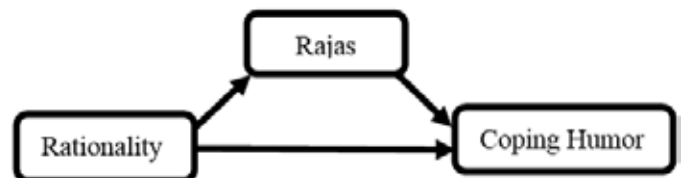
	Effect	Boot SE	Boot LLCI	Boot ULCI
Sattva	.1433	.0733	-.0052	.2857

X = Rationality; Y = Coping Humor

Table 6: Mediation analysis of Sattva guna between Rationality and Coping humor

Table 6 shows mediation analysis to ascertain that Sattva guna acts as a mediator between rationality and coping humor. Since LLCI (-.0052) and ULCI (.2857) range contain zero, therefore, sattva guna does not act as a mediator between rationality

and coping humor. This finding is consistent with the study by Dudones (2022) that indicated no relationship of adaptive humor styles with cognitive distortions. From extant researches, it is clear that Sattva guna is positively related to adaptive mechanisms of individuals and adaptive coping styles such as coping humor. Rationality, however, involves influences from cognitive distortions and biases. Thus, the result of this study that Sattva guna does not mediate the relationship between rationality and coping humor can be explained with the findings of Dudones (2022) which discards the view of relationship between rationality and Sattva guna and between rationality and coping humor. This is also supported by correlational findings of this study where rationality was found to be not related to Sattva guna and coping humor.

Model VI: Mediation analysis of Rajas guna between Rationality and Coping humor**Figure 7: Mediation analysis showing indirect effect of Rajas guna on the relationship between Rationality and Coping humor**

Indirect effect of X on Y

	Effect	Boot SE	Boot LLCI	Boot ULCI
Rajas	.1193	.0642	.0159	.2686

X = Rationality; Y = Coping humor

Table 7: Mediation analysis of Rajas guna between Rationality and Coping humor

Table 7 shows the mediation analysis to ascertain that Rajas guna acts as a mediator between rationality and coping humor. Since LLCI (.0159) and ULCI (.2686) range does not contain zero, therefore, there is likely to be a genuine indirect effect. Therefore, rajas guna mediates the relationship between rationality and coping humor, which is 0.12 points higher as mediated by Rajas guna. As described by Tversky and Kahneman (1986), rationality relates to attention, concentration and careful analysis to go beyond the intuitive and reflex responses which may have been influenced by cognitive errors and biases. The increase in rationality, therefore, decrease Rajas guna characterized by restlessness, attentional problems, anxiety, aggressive tendencies and intrusive behaviours as understood by Das and Gopal (2009). This decrease in Rajas guna increase coping humor, defined as the use of humor by individuals to cope with life adversities by reducing anxiety, increasing psychological flexibility and strengthening coping strategies. This finding is consistent with extant studies that trace the path of this relationship with help of the aspect of psychological health. Extant researches suggest rationality reduce distress (Clare, 2011) which relates to good psychological health. This leads to reduction in dominance of Rajas guna which includes

being anxious, depressed, restless, aggressive and greedy (Das and Gopal, 2009) that negatively affects psychological health. Finally, it leads to increase in coping humor which play a vital role in reinforcing self-efficacious approaches to manage health issues, especially in older adults, as suggested by Marziali et. al (2008). This finding can be explained with the help of Vaillant's Adult Tasks Theory (Malone et al., 2016). According to him, people engaged in "generativity" by building good interpersonal relations, career consolidation and family strengthening till 40-45 years of age, while during 40-65, they engage in reflecting upon mortality and achievement of "generativity" tasks. The successful achievement of these tasks leads to a mature adult while non-achievement into an immature adult. Generativity can be achieved by making rational decisions in life, and rising beyond the Rajas characteristics of greed, anxiety, restlessness and self-interests. Vaillant suggested that adult tasks achievement also require the use of mature and adaptive coping mechanisms, such as coping humor. Thus, Rajas guna can be said to have a genuine indirect effect on the relationship of rationality with coping humor.

Model VII: Mediation analysis of Tamas guna between Rationality and Coping humor

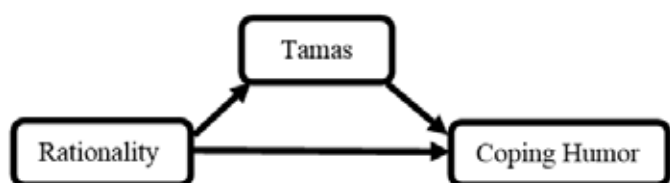


Figure 8: Mediation analysis showing indirect effect of Tamas guna on the relationship between Rationality and Coping humor

Indirect effect of X on Y

	Effect	Boot SE	Boot LLCI	Boot ULCI
Tamas	.2200	.0798	.0939	.4038

X = Rationality; Y = Coping humor

Table 8: Mediation analysis of Tamas guna between Rationality and Coping humor

Table 8 shows the mediation analysis to ascertain that Tamas guna acts as a mediator between rationality and coping humor. Since LLCI (.0939) and ULCI (.4038) range does not contain zero, therefore, there is likely to be a genuine indirect effect. Therefore, Tamas guna mediates the relationship between rationality and coping humor, which is 0.22 points higher as mediated by Tamas guna. This result can be understood in the light of the "dual- process model of rationality" (Stanovich et al., 2016). This influential model proposes two systems underlying the process of rationality. System 1 is called "heuristic system" which is non-reflectively acquired and is evolutionarily adaptive, influenced by the cognitive biases and errors. System 2 is the "analytic system" which is reflective, use algorithms and is reached after overriding the heuristic system. The individuals with dominance of Tamas guna who are lazy and dull tend to use the System 1 of processing as it is easy and requires minimum time and efforts. While rational individuals

tend to use the System 2 which is based on analytical cognitive processing, free from heuristics. Coping humor, on the other end, can also be thought to use the System 2 as it requires careful appraisal and reappraisal of the situations and deliberate efforts to see beyond what is readily available to contribute in positive adaptation and coping. Therefore, from this dual-process model, it can be inferred that individuals with more rationality lower the dominance of Tamas guna, which in turn, increase the tendency of coping humor. This finding can also be explained by the Levinson's Theory of Seasons of Life (Levinson, 1986). He asserted that mid-life transition requires evaluation of one's life, changing values, reflecting upon mortality and leaving a legacy. All these requires rational decision making during the stable periods which can be evaluated during transition periods. These rational decisions employ the individual in working towards these objectives, which can be thought to decrease Tamas characteristics of inertia, dullness and inactivity. The issues of mortality and changing values can be better dealt by employing coping humor strategy as laughing about them can reduce their importance and adverse effects. Thus, Tamas guna is considered to have a genuine indirect effect on the relationship between rationality and coping humor.

CONCLUSIONS

There are significant correlations among almost all the variables of the study. Regression analyses revealed that Rationality predict Rajas and Tamas guna, and only Satva guna predict Coping Humor.

Mediational analyses asserted that Rajas and Tamas guna mediate the relationship between Rationality and Coping Humor. However, Satva guna do not mediate their relationship.

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